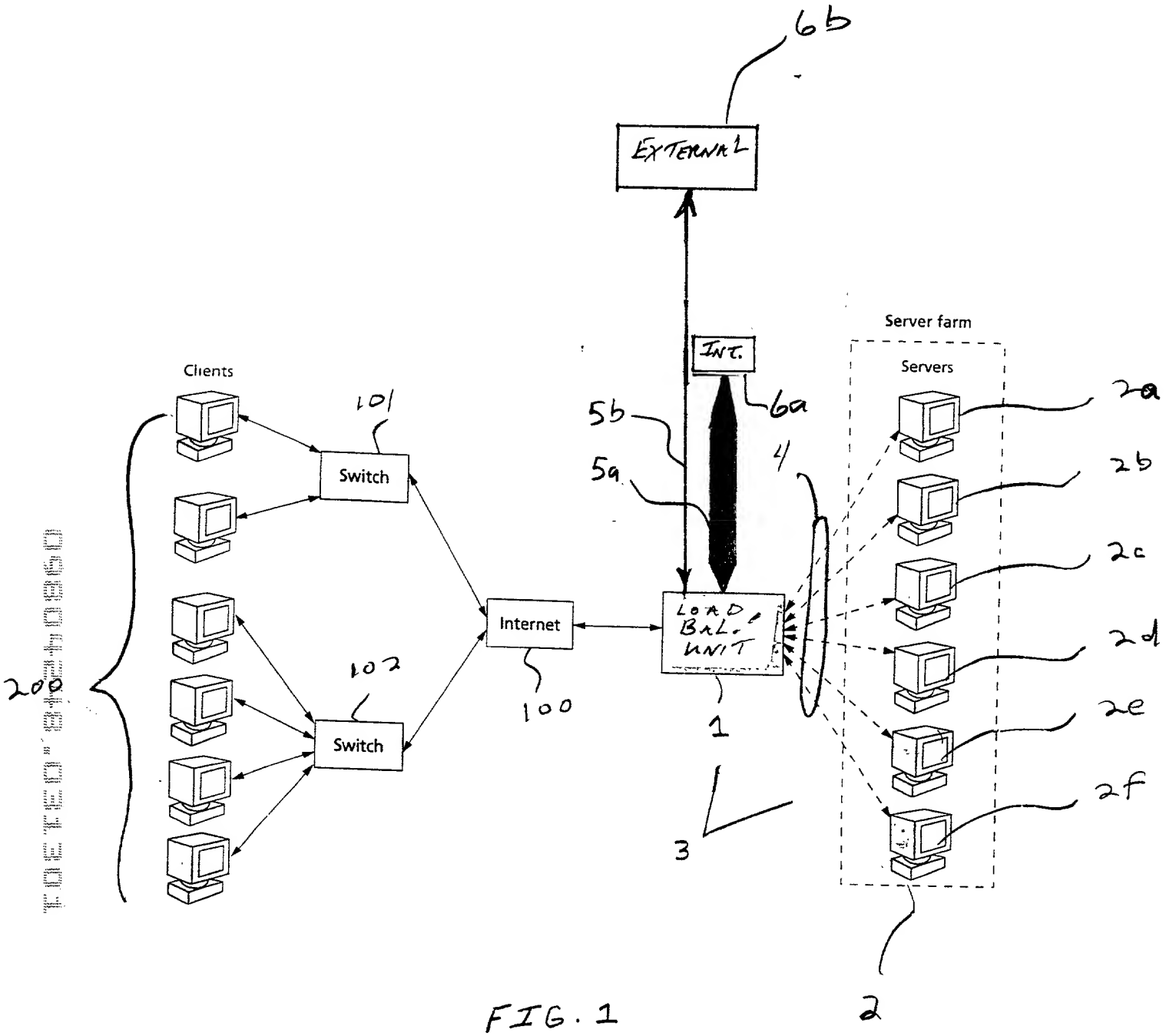

6b
EXTERNAL
INT.
6a
5b
5a
4
Server farm
Servers
2a
2b
2c
2d
2e
2f
Clients
101
Switch
Switch
102
200
Internet
100
LOAD BAL. UNIT
1
3
2

FIG. 1

RULE 1:

IF RT is LOW AND NAC is LOW AND DT is LOW

THEN

SI is HIGH

RULE 2:

IF RT is LOW AND NAC is LOW AND DT is MEDIUM

THEN

SI is MEDIUM-HIGH

RULE 3:

IF RT is LOW AND NAC is LOW AND DT is HIGH

THEN

SI is MEDIUM-LOW

RULE 4:

IF RT is LOW AND NAC is MEDIUM AND DT is LOW

THEN

SI is HIGH

RULE 5:

IF RT is LOW AND NAC is MEDIUM AND DT is MEDIUM

THEN

SI is MEDIUM-HIGH

RULE 6:

IF RT is LOW AND NAC is MEDIUM AND DT is HIGH

THEN

SI is MEDIUM

RULE 7:

IF RT is LOW AND NAC is HIGH AND DT is LOW

THEN

FIG. 2a

SI is MEDIUM-HIGH

RULE 8:

IF RT is LOW AND NAC is HIGH AND DT is MEDIUM

THEN

SI is MEDIUM-LOW

RULE 9:

IF RT is LOW AND NAC is HIGH AND DT is HIGH

THEN

SI is LOW

RULE 10:

IF RT is HIGH AND NAC is LOW AND DT is LOW

THEN

SI is MEDIUM

RULE 11:

IF RT is HIGH AND NAC is LOW AND DT is MEDIUM

THEN

SI is MEDIUM-LOW

RULE 12:

IF RT is HIGH AND NAC is LOW AND DT is HIGH

THEN

SI is LOW

RULE 13:

IF RT is HIGH AND NAC is MEDIUM AND DT is LOW

THEN

SI is MEDIUM-LOW

RULE 14:

IF RT is HIGH AND NAC is MEDIUM AND DT is MEDIUM

FIG. 2b

THEN

SI is LOW

RULE 15:

IF RT is HIGH AND NAC is MEDIUM AND DT is HIGH

THEN

SI is LOW

RULE 16:

IF RT is HIGH AND NAC is HIGH AND DT is LOW

THEN

SI is LOW

RULE 17:

IF RT is HIGH AND NAC is HIGH AND DT is MEDIUM

THEN

SI is MEDIUM-LOW

RULE 18:

IF RT is HIGH AND NAC is HIGH AND DT is HIGH

THEN

SI is LOW

RULE 19:

IF RT is MEDIUM AND NAC is LOW AND DT is LOW

THEN

SI is MEDIUM-HIGH

RULE 20:

IF RT is MEDIUM AND NAC is LOW AND DT is MEDIUM

THEN

SI is MEDIUM

RULE 21:

FIG-2C

IF RT is MEDIUM AND NAC is LOW AND DT is HIGH
THEN
SI is LOW

RULE 22:

IF RT is MEDIUM AND NAC is MEDIUM AND DT is LOW
THEN
SI is MEDIUM-HIGH

RULE 23:

IF RT is MEDIUM AND NAC is MEDIUM AND DT is MEDIUM
THEN
SI is MEDIUM

RULE 24:

IF RT is MEDIUM AND NAC is MEDIUM AND DT is HIGH
THEN
SI is LOW

RULE 25:

IF RT is MEDIUM AND NAC is HIGH AND DT is LOW
THEN
SI is MEDIUM

RULE 26:

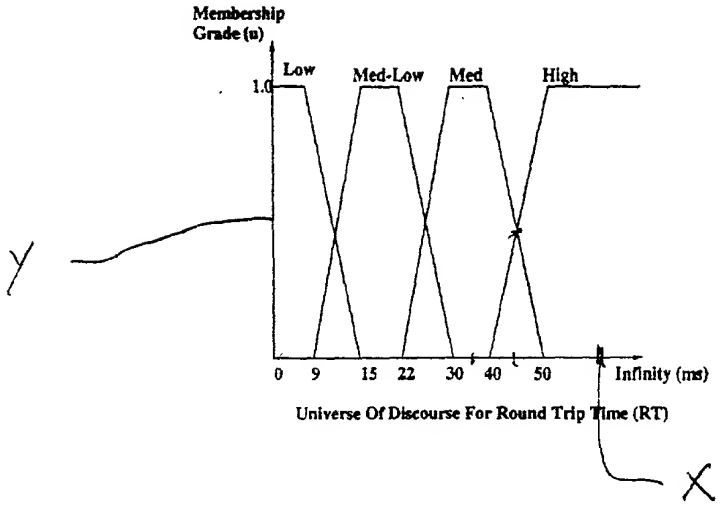
IF RT is MEDIUM AND NAC is HIGH AND DT is MEDIUM
THEN
SI is MEDIUM-LOW

RULE 27:

IF RT is MEDIUM AND NAC is HIGH AND DT is HIGH
THEN
SI is LOW

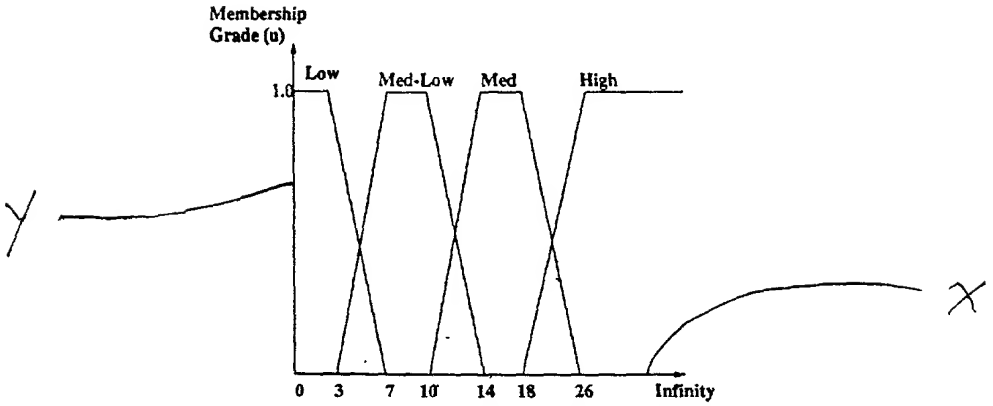
FIG. 2d

FIG. 3



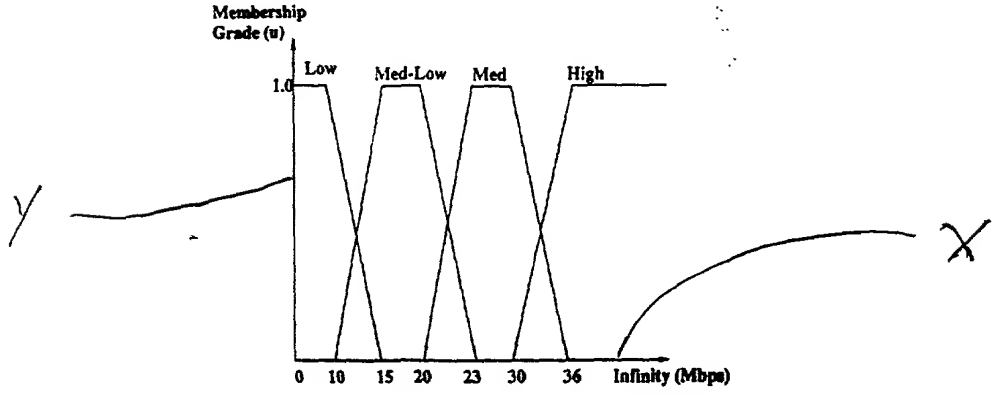
Universe Of Discourse For Round Trip Time (RT)

FIG. 4



Universe Of Discourse For Number of Active Conns (NAC)

FIG. 5



Universe Of Discourse For Delivered Throughput (DT)

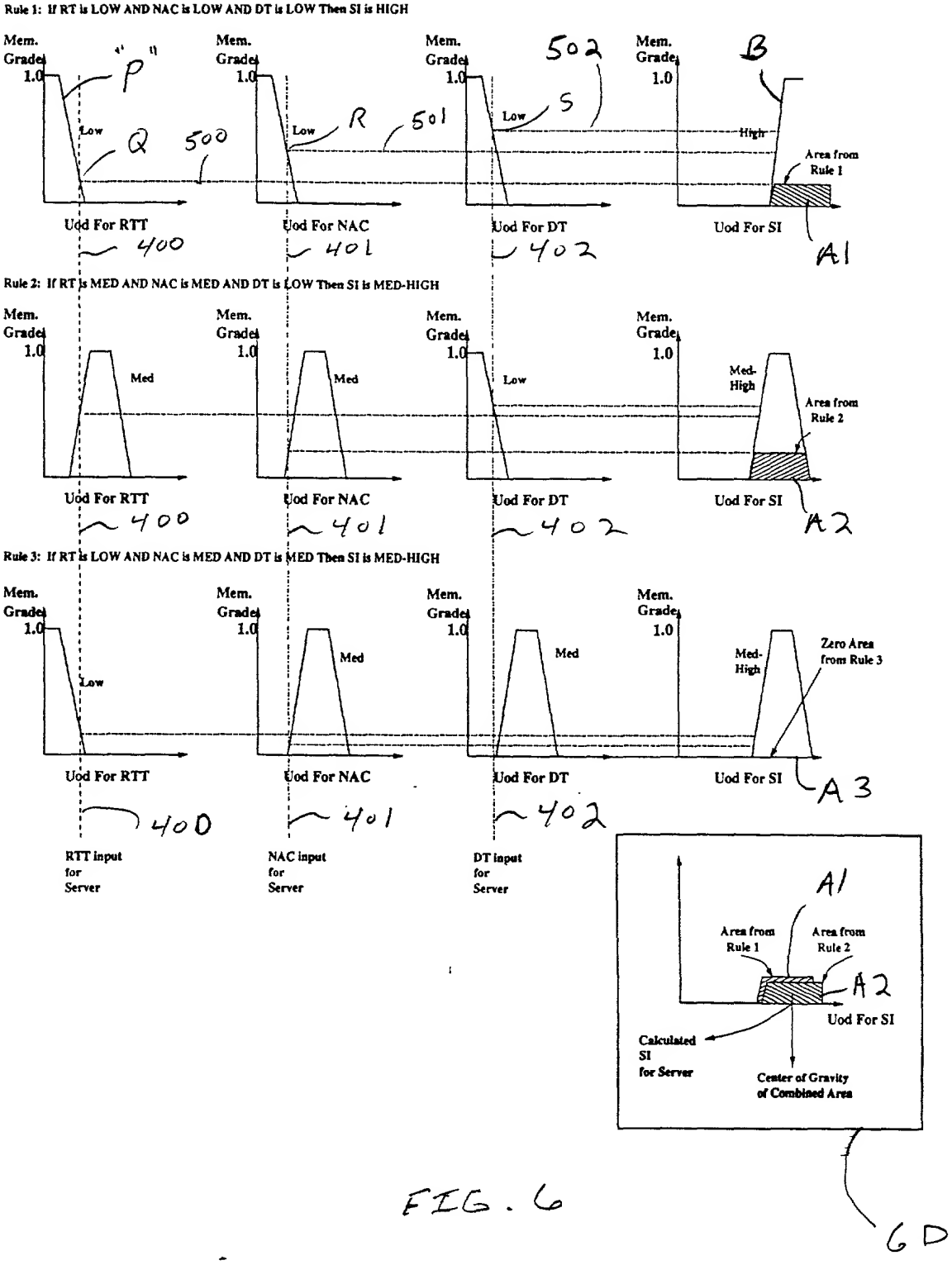

Rule 1: If RT is LOW AND NAC is LOW AND DT is LOW Then SI is HIGH
Mem. Grade 1.0
Low
P
Q
500
R
501
502
S
B
High
Area from Rule 1
A1
Uod For RTT
Uod For NAC
Uod For DT
Uod For SI
400
401
402
Rule 2: If RT is MED AND NAC is MED AND DT is LOW Then SI is MED-HIGH
Med
Med-High
Area from Rule 2
A2
Rule 3: If RT is LOW AND NAC is MED AND DT is MED Then SI is MED-HIGH
Zero Area from Rule 3
A3
RTT input for Server
NAC input for Server
DT input for Server
A1
Area from Rule 1
Area from Rule 2
A2
Calculated SI for Server
Center of Gravity of Combined Area
6A
6B
6C
6D

FIG. 6